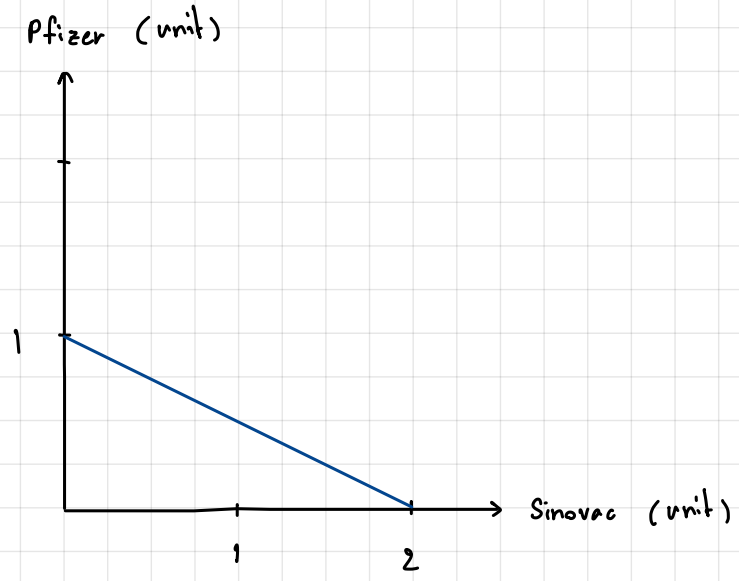
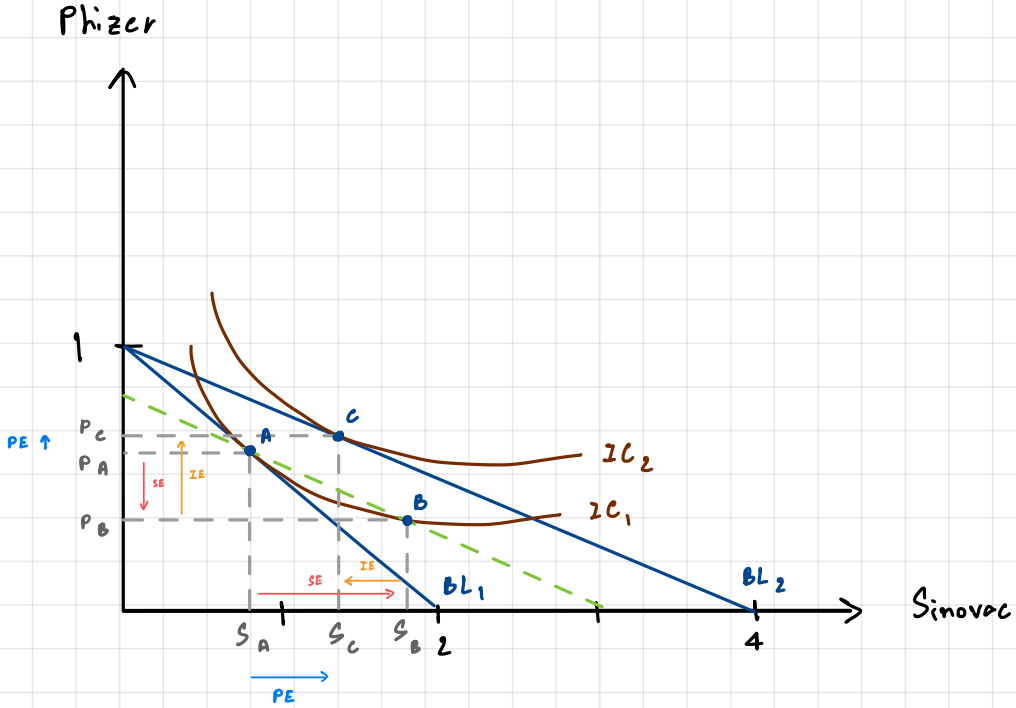
1) a)




b) Sinovac price falls from $ 20 to $ 10



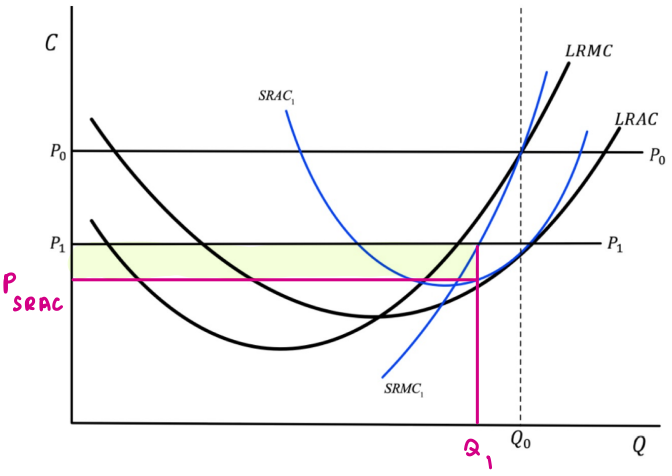

A fall in Sinovac price causes consumer to have higher buying power. Thereby, it has more real income. And since Sinovac is an inferior good, consumer will less demand this product.

SE : $S_a \rightarrow S_b$ (gain) and $P_a \rightarrow P_b$ (loss)

IE : $S_b \rightarrow S_c$ (loss) and $P_b \rightarrow P_c$ (gain)

PE : $S_a \rightarrow S_c$ (gain) and $P_a \rightarrow P_c$ (gain)

2) a)

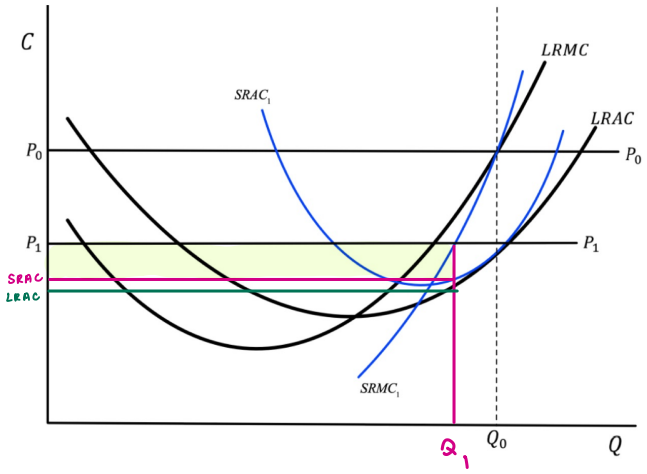



It will produce at $Q_1$ where SRMR or $P_1$ = SRMC

$$\text{Profit} = (P_1 - P_{SRAC})\,Q_1$$

(in short run)

b)

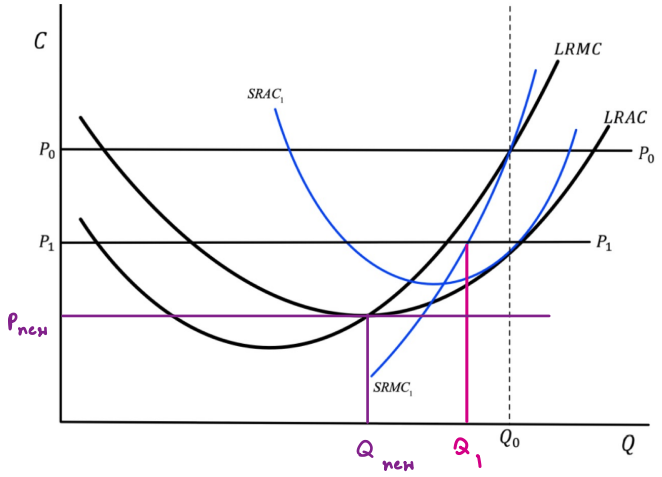



Profit is area of square $(P_1 \times P_{MC}) \times Q_1$

Since LRAC < SRAC, the profit in long-run will be larger than in short-run

as the area is bigger

c)




Since there is no new seller entering the market, Firm will produce at $Q_{new}$ and lower the price to $P_{new}$ to meet long-run equilibrium where P = LRMC = min LRAC and gain no economic profit.

3) a) Price at $ 80 and produce at 10 million dose

b) Profit = (P − AC) × Q

= (80 − 65) × 10

= $ 150 million

c) Price at $ 50 and 18 million dose

d) If the government produces vaccines at 20 million doses, this will be sold at $ 40 per dose. However, at this quantity, ATC > P resulting as firm faces losses.

Therefore, to minimise all losses, the government should subsidize

(ATC − P) × Q = (48 − 40) × 20 = $ 160 million to cover all losses.